

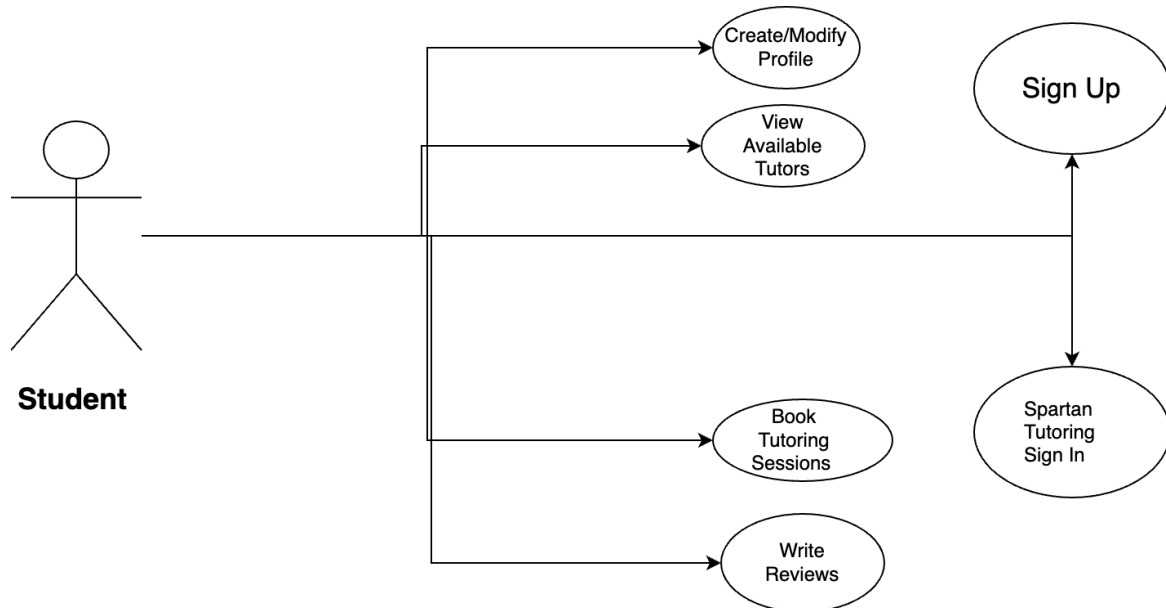
Design Document
Spartan Tutoring Online Platform
03/25/2025
Version 1

Kannan Thilak

Project Overview

The goal of the Spartan Tutoring Online Platform is to connect students with tutors for online learning sessions. This web application enables students to find tutors based on subjects, availability, and ratings while allowing tutors to manage their schedules and interact with students efficiently. Students can create profiles, browse tutors, book sessions, and write reviews, while tutors can set up profiles, list subjects and availability, manage student interactions, and reply to reviews. The platform aims to simplify access to quality tutoring services and provide a secure, user-friendly environment for learning interactions.

Use-Case Model



Actors:

1. Student (Customer) - Kannan Thilak

- Description: A user who seeks tutoring services, browses tutors, books sessions, and provides feedback.
- Use Cases:
 - UC1: Create/Modify Customer Profile
 - The student signs up or edits their profile (e.g., name, learning preferences).
 - UC2: View Available Tutors
 - The student browses tutors by subject, availability, and ratings.
 - UC3: Book Tutoring Sessions
 - The student schedules a session with a tutor and receives confirmation.
 - UC4: Write Reviews
 - The student rates and provides feedback on a tutor after a session.

2. Tutor (Provider)

- Description: A user who offers tutoring services, manages their profile, and interacts with students.
- Use Cases:
 - UC5: Create/Modify/Remove Tutor Profile
 - The tutor registers, updates, or deletes their profile (e.g., expertise, bio).
 - UC6: List Subjects & Availability
 - The tutor specifies subjects taught and updates their schedule.
 - UC7: Manage Student Interactions
 - The tutor accepts/rejects session requests and communicates with students.
 - UC8: Reply to Reviews
 - The tutor responds to student feedback to enhance credibility.

Database Schema

Students		
Data Type		Variable name
INT, Primary Key		student_id
VARCHAR(50), Unique		username
VARCHAR(100), Unique		email
VARCHAR(255)		password_hash

Subjects		
Data Type		Variable name
INT, Primary Key		subject_id
INT, Foreign Key -> Tutors		tutor_id
VARCHAR(100)		name
TEXT, Nullable		description

Bookings	
Data Type	Variable name
INT, Primary Key	booking_id
INT, Foreign Key -> Students	student_id
INT, Foreign Key -> Tutors	tutor_id
INT, Foreign Key -> Subjects	subject_id

Reviews	
Data Type	Variable name
INT, Primary Key	review_id
INT, Foreign Key -> Students	student_id
INT, Foreign Key -> Tutors	tutor_id
INT, Foreign Key -> Bookings	booking_id
INT, Range 1-5	rating
TEXT, Nullable	comment